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REMARKS**I. Claim Rejections – 35 U.S.C. § 103*****Requirements for Prima Facie Obviousness***

The obligation of the examiner to go forward and produce reasoning and evidence in support of obviousness is clearly defined at M.P.E.P. §2142:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

M.P.E.P. §2143 sets out the three basic criteria that a patent examiner must satisfy to establish a *prima facie* case of obviousness:

1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
2. a reasonable expectation of success; and
3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined).

It follows that in the absence of such a *prima facie* showing of obviousness by the Examiner (assuming there are no objections or other grounds for rejection), an applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443 (Fed. Cir. 1992). Thus, in order to support an obviousness rejection, the Examiner is obliged to produce evidence compelling a conclusion that each of the three aforementioned basic criteria has been met.

Suman in view of Lightner

Claims 1-4 and 11, 13-17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suman et al, hereinafter "Suman" (U.S. Patent No. 6,028,537) in view of Lightner, et al., hereinafter "Lightner" (U.S. Patent No. 6,732,031).

Regarding claims 1-4, 11, 13-14, the Examiner argued that Suman teaches a latch communications system, comprising:

a host computer (citing reference numeral 13 of Suman) and a wireless network (citing col. 7, lines 24-31 of Suman);

a communications receiver and transmitter unit formed by a receiver (citing reference numeral 70 of Suman), the receiver and transmitter associated with a latch (arguing "lock" of Suman) because the command to operate the lock is received by the receiver of transceiver (citing reference numeral 70 and col. 12, lines 14-20 of Suman);

an interface component in the form of a cellular modem (citing reference numeral 76 of Suman) for interfacing with said communications receiver and transmitter unit (citing col. 12, lines 14-16 of Suman) and arguing that that the cellular modem is also co-located with the transceiver;

an interpreter provided by processor (citing 66 of Suman) for processing information received from the communication transceiver and receiver in order to provide latch functionalities (citing col. 12, lines 14-20 of Suman).

The Examiner admitted that Suman is silent on teaching providing latch diagnostics. The Examiner argued, however, that Lightner is an art related vehicle diagnostic system and teaches a host computer (arguing reference numeral 12 of Lightner) interfacing with a vehicle system for providing diagnostic including the status of the door lock system (citing col. 6, lines 36-40 of Lightner) in order to characterize a vehicle performance and to detect problems relating to the operation of the vehicle.

The Examiner asserted that it would have been obvious to one of ordinary skill in the art to modify the latch system of Suman as disclosed by Lightner because providing latch diagnostics allows the characterization of a vehicle performance and to detect problems relating to the operation of the vehicle.

The Applicant respectfully disagrees with this assessment. Neither Suman or Lightner, alone or in combination with one another teach the use of a bi-directional communications protocol, which allows for the receiving of latch status and operational information and data during any operational cycles of said vehicle door latch and for allowing the transmitting of any vehicle latch command to said vehicle door latch, thereby permitting active debugging of said vehicle door latch without the use of a vehicle computer. Such features are, however, taught by Applicant's invention. For example, paragraph [0024] of Applicant's specification indicates the following:

"...In order to perform latch diagnostics and/or active debugging without interfacing with the complexities of a vehicle computer, a bi-directional communications protocol must be implemented, which is indicated in FIGS. 1-3 herein. Such a protocol allows for the receiving of latch status and operational information and data during any of its operational cycles (e.g., static or dynamic). Such a protocol also allows for the transmitting of any latch command, thereby permitting active debugging without the use of a vehicle computer."

Such claim limitations are not taught, suggested or disclosed by the combination of Suman/Lightner.

Additionally, it is significant to note that reference numeral 13 of Suman does not refer to a "host computer" but instead refers to a "computer 13 at the network service center 11 or through the internet" that is used for sending text messages (see Col. 6, lines 50-66 of Suman). In other words, computer 13 of Suman is used for sending text messages but does not function as a host computer for use in

managing and sending the bi-directional communications protocol of Applicant's invention.

It is also significant to note that Suman does not provide for the debugging of latch problems as taught by Applicant's invention. Suman does provide for a system allowing for the remote control of vehicle functions and accessories using an RF signal. In this manner, vehicle owners may lock their vehicle doors, roll up their windows, or activate an alarm system from any location in response to an RF signal. Suman does not provide, however, for providing latch diagnostics and functionalities in association with a bi-directional communications protocol, which allows for the receiving of latch status and operational information and data during any operational cycles of said vehicle door latch and for allowing the transmitting of any vehicle latch command to said vehicle door latch, thereby permitting active debugging of said vehicle door latch without the use of a vehicle computer.

Regarding claims 2 and 15, the Examiner argued that Suman teaches the wireless communication network is a paging network (citing col. 6, lines 4-8 of Suman). The Applicant respectfully disagrees with this assessment and notes that amended claims 2 and 15 no longer refer to a paging network. Thus, the Examiner's argument with respect to claims 2 and 15 and the paging network are rendered moot.

Regarding claims 3 and 16, the Examiner argued that Suman teaches the wireless communications components including an antenna (citing reference numeral 17 of Suman) and associated circuitry (citing col. 10, lines 59-64 of Suman). The Applicant respectfully disagrees with this assessment and notes that the use of Applicant's antenna and associated circuitry involves the transmission and receipt of Applicant's bi-directional communications protocol, which again, is not taught, suggested or disclosed by Suman and/or Lightner.

Regarding claims 4 and 17, the Examiner argued that Suman teaches a direct wire connection for communicating data to and from an interpreter (arguing that

reference numeral 66 of Suman is an interpreter and citing FIG. 5 of Suman). The Applicant respectfully disagrees with this assessment. Reference numeral 66 of Suman is a microprocessor. The interpreter of Applicant's invention provides for a specific purpose and processes not taught or suggested by the microprocessor or Suman. That is, Applicant's interpreter processes information received from said communications receiver and transmitter unit in order to provide latch diagnostics and functionalities for said vehicle door latch, wherein said interpreter comprises a logic array that performs a particular function based on particular data received from said interface component. Neither FIG. 5 nor reference numeral 66 of Suman show, suggest or teach the logic array of Applicant's interpreter or the ability of the microprocessor 66 to provide the latch diagnostics and functionalities taught by Applicant's invention.

Additionally, neither Suman nor Lightner teach, suggest and/or disclose wherein said bi-directional communications protocol comprises a general packet format in association with said bi-directional communications protocol, wherein said general packet format comprises at least two different packet types including a debug information packet that provides debug information and a version information packet that provides version information. Such claim limitations are, however, taught by Applicant's invention. See, for example, paragraphs [0025] - [0039] of Applicant's invention.

Based on the foregoing, the Applicant submits that the rejection to claims 1-4, 11, 13-14 based on 35 U.S.C. 103(a) has been traversed. The Applicant therefore respectfully requests withdrawal of the rejection to claims 1-4, 11, 13-14.

Suman, Lightner, Heaston

Claims 5 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suman in view of Lightner and further in view of Heaston, et al., hereafter "Heaston" (U.S. Patent No. 5,748,422).

Regarding claims 5 and 18, the Examiner argued that Suman teaches a wired connection between an interpreter (asserting that reference numeral 66 of Suman is an "interpreter") and a transceiver (citing reference numeral 70 and FIG. 5 of Suman), but admitted that Suman is silent on the teaching a voltage level shifter for transforming a voltage level for communication with the interface component. The Examiner argued that Heaston is an art related power latch invention and teaches the use of a voltage level shifter for transforming a voltage to a desired level (citing col. 6, lines 21-30 of Heaston) in order to satisfy the voltage level requirement for an interface unit.

The Examiner therefore asserted that it would have been obvious to one of ordinary skill in the art to modify the latch control system of Suman in view of Lightner as disclosed by Heaston because a voltage shifter is necessary for transforming a voltage to a desired level in order to satisfy the voltage level requirement of an interface unit.

The Applicant respectfully disagrees with this assessment. Claim 5 is dependent upon claim 4 and claim 18 is dependent upon claim 17, which includes the claim limitation of configuring said bi-directional communications protocol to comprise a general packet format in association with said bi-directional communications protocol, wherein said general packet format comprises at least two different packet types including a debug information packet which provides debug information and a version information packet that provides version information. Neither Heaston, Suman nor Lightner disclose individually or in combination with one another such claim limitations.

The Applicant therefore respectfully submits that the rejection to claims 5 and 18 has been traversed. The Applicant requests withdrawal of this rejection.

Suman, Lightner, Knight

Claims 6-10, 12, and 19-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suman in view of Lightner and further in view of Knight et al, hereinafter "Knight" (U.S. Patent No. 20030167345).

Regarding claims 6-10, 12 and 19-20, the Examiner argued that Suman teaches an interface for transmitting and receiving data between a host computer and transceiver (the Examiner referred to the response to claim 1), but admitted that Suman is silent on teaching the interface comprising an UART. The Examiner asserted that Knight is an art related vehicle communication system invention and argued that it teaches the use of a UART in a vehicle communication interface (citing paragraph 00189 of Knight) and that the UART of Knight transmits in parallel by assembling the bit received into bytes and transmitting the assembled bytes to the processor (citing paragraph 0188 of Knight). The Examiner further argued that Knight teaches integrating the UART and having the UART separate (citing paragraph 0164 of Knight) based on a desired application.

The Examiner argued that it would have been obvious to one of ordinary skill in the art to modify the latch control system of Suman in view of Lightner as disclosed by Knight because the use of a UART in a vehicle communication system facilitates the transfer of data between devices with different communication protocols.

The Applicant respectfully disagrees with this assessment, and notes that all of the arguments provided above against the rejections to the claims based on Suman/Lightner apply equally to the present rejection against claims 6-10, 12, and 19-20 based on Suman/Lightner/Knight. Neither Suman, Lightner and/or Knight teach all of the following claim limitations:

bi-directional communications protocol comprising a general packet format in association with said bi-directional communications protocol, wherein said general

packet format comprises at least two different packet types including a debug information packet that provides debug information and a version information packet that provides version information; and

said interface component comprising a Universal Asynchronous Receiver/Transmitter (UART) which can receive and transmit data serially from said communications receiver and transmitter unit and receive and transmit data in parallel with said interpreter.

Additionally, the Applicant notes that the parallel operation of the Applicant's UART is not taught or described by Lightner. The Examiner argued that the UART of Knight transmits in parallel by assembling the bit received into bytes and transmitting the assembled bytes to the processor and cited paragraph 0188 of Knight. Paragraph 0188 of Knight does not describe a parallel process but instead clearly teaches one that is serial in nature. Paragraph 0188 of Knight teaches the following:

"Turning to FIG. 10, a flow chart that illustrates one preferred embodiment of an algorithm to implement the optional RS-232 to J1587 interface is shown. The algorithm begins at step 1002. In step 1004, serial information from the serial device coupled to RS-232 transceiver 218 enters transceiver 218 as a serial bit stream, and in step 1006 is immediately transferred to the UART associated with the Serial 2 interface of CPU 204. The UART converts the serial bit stream to bytes, and stores the bytes in a buffer. In steps 1008-1010, CPU 204 polls the UART in a continuous polling cycle. During each cycle, in step 1012 any new bytes are read and stored in a RAM associated with CPU 204. Alternatively, CPU 204 may respond to an interrupt generated when data is received by the UART."

It is thus clear that Knight does not teach the parallel feature of Applicant's invention but instead teaches away from it by clearly teaching the use of serial operations.

The Applicant therefore respectfully submits that the rejection to claims 6-10, 12, and 19-20 has been traversed. The Applicant respectfully requests withdrawal of this rejection.

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III. Conclusion

In view of the foregoing discussion, the Applicant has responded to each and every rejection of the Official Action. The Applicant has clarified the structural distinctions of the present invention. Applicant respectfully requests the withdrawal of the rejections under 35 U.S.C. §103 based on the preceding remarks. Reconsideration and allowance of Applicant's application is also respectfully solicited.

Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact the undersigned representative to conduct an interview in an effort to expedite prosecution in connection with the present application.

Respectfully submitted,



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